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| **K/U**  **/10** | **APP**  **/5** |

SNC1D Unit: The Characteristics of Electricity Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Electricity Quiz**

**(Handouts are allowed)**

1. **MULTIPLE CHOICE: Write the final answer in the box on the right. [10 marks – K/U]**
2. When a positively-charged object is near a negatively-charged object, they:

|  |  |
| --- | --- |
| **1** |  |
| **2** |  |
| **3** |  |
| **4** |  |
| **5** |  |
| **6** |  |
| **7** |  |
| **8** |  |
| **9** |  |
| **10** |  |

1. Attract C. Attract then repel
2. Repel D. Repel then attract
3. Which of the following is NOT a method to charge objects?
4. Friction C. Deduction
5. Induction D. Conduction
6. An ebonite rod is rubbed with fur. The ebonite rod becomes negatively charged because:
7. Protons transferred from the rod to the fur
8. Protons transferred from the fur to the rod
9. Electrons transferred from the rod to the fur
10. Electrons transferred from the fur to the rod
11. A neutral metal sphere is touched by a negatively charged metal rod. What type of charge does the sphere acquire?
12. Positive C. Neutral
13. Negative D. Polarized
14. Which of the following is a good insulator?
15. Nickel C. Rubber
16. Copper D. Gold
17. When you turn a switch on in a circuit, you are:
18. Completing an electrical circuit
19. Interrupting an electrical circuit
20. Reversing an electrical circuit
21. Running a circuit to ground
22. What does an ammeter measure?
23. Voltage C. Resistance
24. Current D. Energy
25. If potential difference is 6V and the current is 2A, what is the resistance in the circuit?
26. 12 Ω C. 4 Ω
27. 8 Ω D. 3 Ω

9. Which of the following is NOT an electrical cell?

1. Dry cell C. Gas cell
2. Solar cell D. Wet cell

10. What is the correct formula for percent efficiency (PE) of an electrical device?

1. PE = Useful energy output x 100% C. PE = Useful energy output

Total energy input Total energy input

1. PE = Useful energy input x 100% D. PE = Useful energy output x 100%

Total energy output

1. **SHORT ANSWER: Answer the following questions in the space below.**
2. If a string of Christmas light bulbs were connected together in a series circuit, what would happen to the rest of the lights when one of them burned out? Explain your reasoning. [2 marks – APP]

12. What sources of renewable and non-renewable energy? What sources of electrical energy can best be developed in Ontario in future? Explain . [3 marks - App]